



**DECLARATION UNDER 37 C.F.R. 1.132**

I, Dr. Joseph R. Guckert, do hereby declare as follows:

1. I was granted a Bachelor of Science degree in Chemical Engineering from the University of Notre Dame in 1979; and a Doctor of Philosophy in Chemical Engineering from the University of Minnesota in 1985
2. I have worked for the assignee of this patent application no. 10/664,708, E.I. du Pont de Nemours and Company, since 1984. I have worked in the nonwovens industry for over 20 years, and I am presently a Technical Manager for DuPont Nonwovens Business Unit, specifically for DuPont's efforts at developing sub-micron diameter nonwoven fibers, webs and fabrics.
3. I have read, understood and considered the patent examiner's rejections in the outstanding Office Action, issued 16 August 2006, under 35 U.S.C. §§ 102(e) and/or 103(a), all of which rely on Zucker (U.S. Patent Application Publication No. 2003/0129909) as a base reference.
4. I have reviewed the Zucker reference, as well as U.S. Patent No. 6,114,017 to Fabbriante et al., referenced by Zucker as disclosing a method by which nano-denier continuous filament webs can be produced. I disagree with the Examiner's conclusion that Fabbriante et al. would enable the skilled artisan to make nonwoven fabrics having a fibrous barrier web consisting only of continuous fibers having average diameters of less than one (1) micrometer, as claimed in the present application.
5. In November 2003, I was made aware of Mr. Fabbriante's claims to be able to produce sub-micron fibers. I contacted Mr. Fabbriante in order to explore the capabilities of his technology, especially in regard to their ability to produce nonwoven webs made exclusively of sub-micron fibers. On December 1, 2003, Mr. Fabbriante made a presentation to me and other interested colleagues on his technology. He shared his technology to make sub-micron fibers, as laid out in Patent No. 5,637,379.
6. I attach hereto as Exhibit A an email with four attached photomicrographs which I received from Anthony Fabbriante, one of the inventors of Fabbriante et al., on 12 February 2005. Mr. Fabbriante had contacted DuPont as to the invention disclosed in Fabbriante et al. to determine if DuPont might have an interest in licensing rights to his patents. In order to make sub-micron fiber containing meltblown webs. Mr. Fabbriante followed-up with another email on 6 June 2005 (Exhibit B), containing

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more information and three of the four photomicrographs that were attached to his earlier email to me.

7. To the best of my knowledge, the photomicrographs included with Mr. Fabbicante's emails were of meltblown webs made with an apparatus and according to the process set forth in the Fabbicante et al. reference, cited by both Zucker and the Examiner in the outstanding Office Action.
8. The photomicrographs in Exhibits A and B reveal that, as of February of 2005, the Fabbicante et al. meltblowing dies and method could make some fibers having diameters less than one micrometer, but could not make fibrous webs consisting only of continuous fibers having average diameters of less than one (1) micrometer. As is clear from the "1 $\mu$ " scale on the bottom right of the photomicrographs, most of the fibers present in the Fabbicante samples are greater than one micrometer in diameter, and very few are less than 0.5 micrometer in diameter.
9. Based upon the fact that Mr. Fabbicante knew that DuPont was interested in making nonwoven webs containing exclusively sub-micron fibers, and since it was in his financial interest to demonstrate to DuPont his best efforts at so doing, in my opinion the photomicrographs in Exhibits A and B hereof represent the smallest fibers and most consistent webs which could be made by the Fabbicante et al. apparatus as of the date of those photographs: February, 2005.
10. It is my further opinion that Zucker does not provide those of skill in the art with any additional information which would enable them to modify the Fabbicante et al. apparatus and/or process, so as to produce a nonwoven web made of only sub-micron fibers, in spite of Zucker's statement at paragraph [0018].
11. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

  
Joseph R. Guckert

10/3/06  
Date

Attachments: Exhibits A and B

Guckert Declaration  
Exhibit A

Joseph R Guckert/AE/DuPont  
08/22/2006 08:35 PM

To Thomas W Steinberg/AE/DuPont@DuPont  
cc  
bcc  
Subject Fw: Meltblown Nanofibers by NTI

Tom,

We do not have any samples, but NTI did send us photos. To my eye, the average fiber diameter looks larger than 1 micron.

Joe

----- Forwarded by Joseph R Guckert/AE/DuPont on 08/22/2006 08:01 PM -----



Anthony Fabbicante  
<asfabb@optonline.net>  
02/12/2005 09:46 AM

To Joseph R Guckert/AE/DuPont@DuPont  
Dupont-M [REDACTED]  
cc [REDACTED]  
[REDACTED]  
Subject Meltblown Nanofibers by NTI

Joe,

Update: Recent SEM's attached (Note the percentage of nanofibers below 1 micron.). We're still trying to tie-in with a partner. Unfortunately, we've had failures, but we may be getting closer in doing so. (Do you hear an echo!!!).

Best regards,  
NonWoven Technology, Inc.

Tony (Fabbicante)  
516-624-2032



#1.1uX5K.jpg



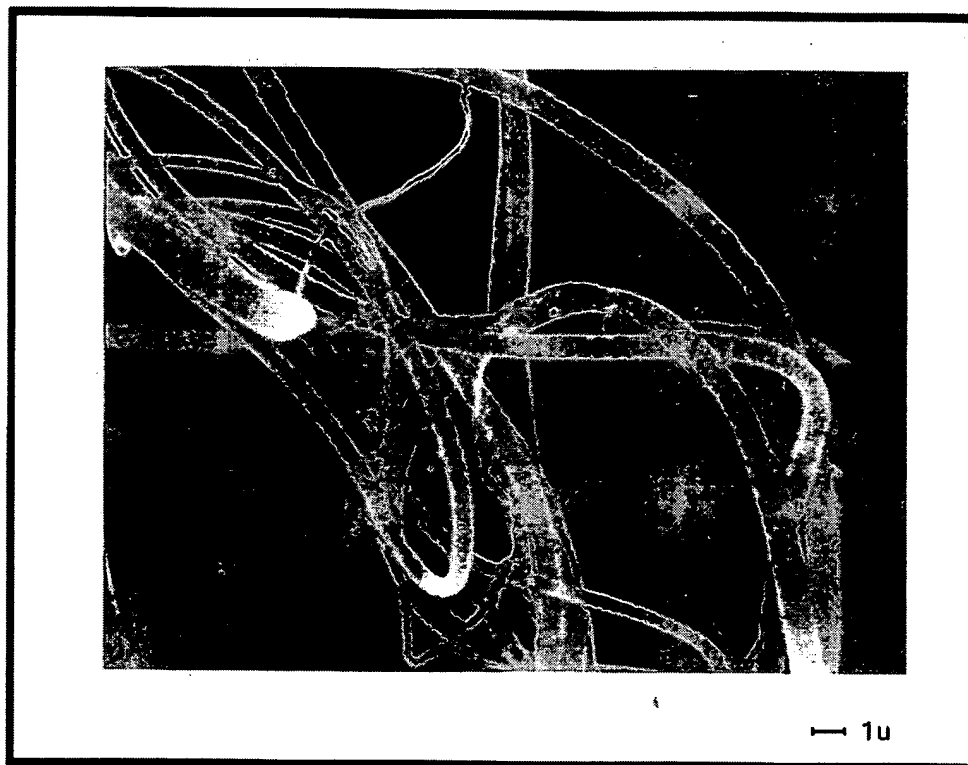
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#2.1uX5K.jpg



#3.1uX5K.jpg



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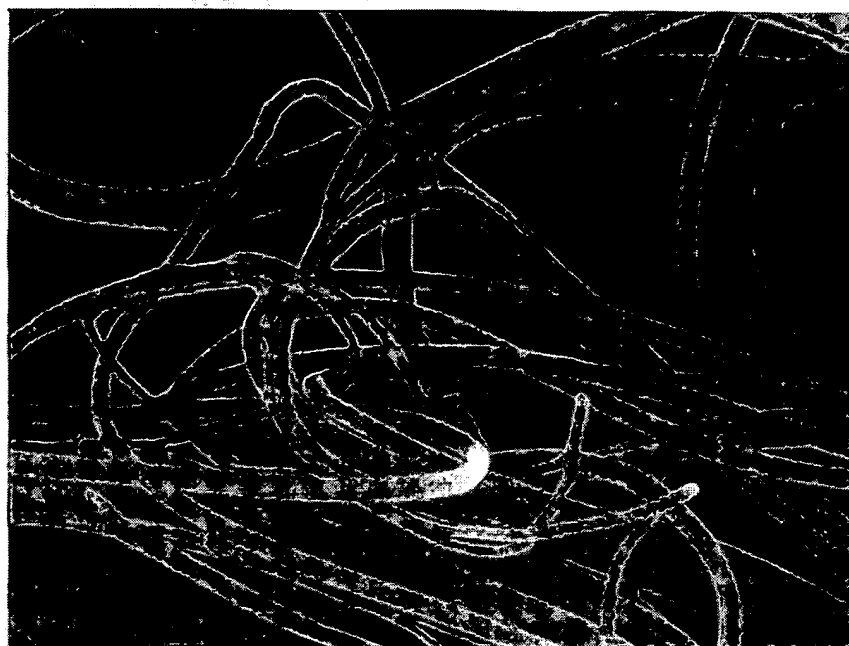
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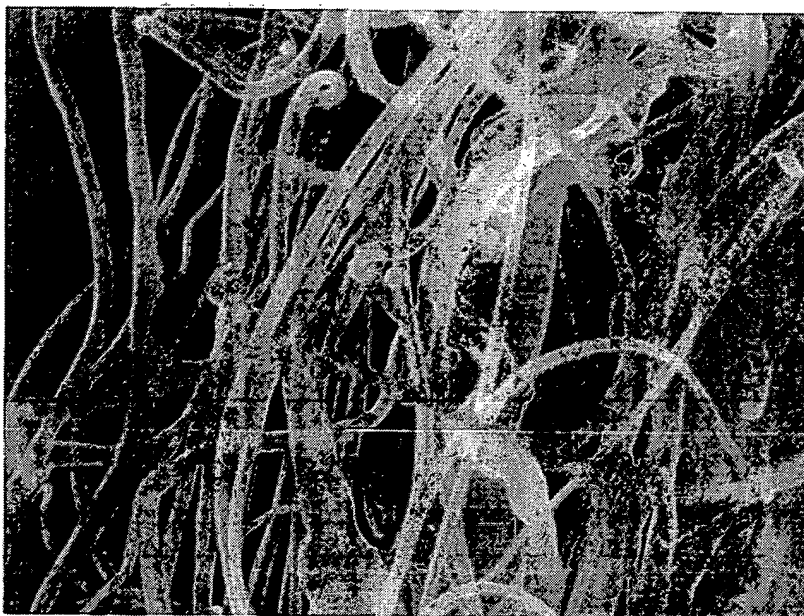
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1u

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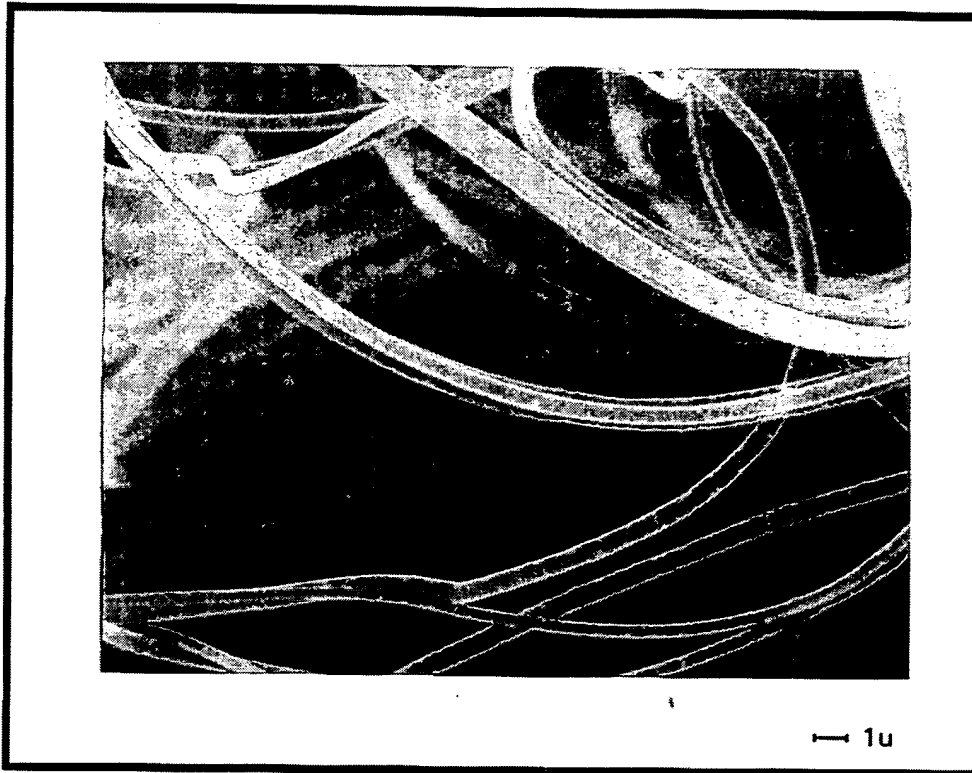
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Date 02-01-05

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Time 22:21

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Guckert Declaration  
Exhibit B

Joseph R Guckert/AE/DuPont  
08/22/2006 08:37 PM

To Thomas W Steinberg/AE/DuPont@DuPont  
cc  
bcc  
Subject Fw: Spinnerets/Dies Major Patented Breakthrough (DODU)

more photos

----- Forwarded by Joseph R Guckert/AE/DuPont on 08/22/2006 08:37 PM -----



Anthony Fabbicante  
<asfabb@optonline.net>  
06/06/2005 03:45 PM

To Undisclosed-Recipient;;  
cc NTIUSA <nti\_usa@yahoo.com>  
Subject Fw: Spinnerets/Dies Major Patented Breakthrough (DODU)

NonWoven Technologies, Inc. (NTI)  
Oyster Bay, Long Island, New York USA

**“WE’RE NOT JUST ABOUT MELTBLOWN NANOFIBERS !”**

**SUBJECT: Licensing of NTI’s Patented Technology**

**KEY WORDS:** Nanofibers (<250 nm obtainable -- not staple – (please see (3) images below) –Nonwoven Geotextiles – Filtration (Air/Liquid/Gas) -- Nonwoven Membrane -- Roofing – Battery Separator Media -- Insulation -- Heavy Weight Goods – Disposables -- Substrates — MeltFelts -- Bedding — Padding -- Fill (And More)

**KEY APPLICATIONS:** NTI’s unique, Double-Row (4”row separation) meltblown spinneret (See photos below: A trial version of one of NTI’s spinnerets at the Univ. of Tenn. test lab) - Extreme High Operating Pressures – Massive Increases in Throughputs (20% to 40% over all conventional technologies) – No “Unzipping” – (And More)

**NTI’s FUTURE TECH APPLICATIONS for: Spunbond – Spunlace – Bicomponent – Hot Melts Adhesive – Monofilaments – (And More)**

Decades ago when **EXXON** developed the meltblown concept, Licensing Agreements were granted to companies giving them “right-of-use” to their fiber-making technology. *Since then,*



***there have been no major breakthroughs to improve this technology until now.*** With the approval of NTI's two (2) patents, 1- foreign (another pending; another soon to be filed; more in the works), ***NTI's meltblown fiber-making spinnerets/dies*** have made Exxon's technology and all others ***"impractical" and no longer "state-of-the-art"***.

**PURPOSE OF THIS ANNOUNCEMENT:** Many companies have expressed an interest in our revolutionary fiber-making spinnerets/dies. Therefore, rather than compete with Reifenhauer, Hills, Nordson, and other nonwoven equipment builders, the decision has been made to ***offer Licensing Agreements*** of our patented technology to others. This agreement gives the **RIGHT** to companies to **convert and/or build their own nonwoven line for their own use**. (If required, NTI expert consultants will be available to assist in design and setup.) Through the enormous cost savings of such an agreement, capital would then become available for companies to develop, improve and/or create unique new products.

If your end-products include ***nanofibers, substrates, geononwovens, roofing, automotive nonwoven components, or other nonwoven products in this field***, the information below will give you a better insight into NTI's fiber-making technology.

Some of the primary reasons why NTI's technology is considered ***"untouchable"*** :

- NTI's spinnerets/dies can withstand extreme high pressures ***without "unzipping"***, thereby, dramatically increasing throughputs.
- NTI's unique, standard, patented polymer nozzle produces ***20% to 40% more throughput*** per hole than that of competitors.
- NTI's breakthrough technology also has the capability of providing ***more holes/linear inch*** than that of competitors.
- NTI's unique patented designs ***isolate the polymer nozzle with 4 surrounding air jets***, which results in ***excellent fiber-making control over industry's continuous air slot concepts***.
- Product requirement: NTI's orifices can also be made small enough to produce ***meltblown nanofibers***, thus alleviating dependencies on electrostatic-spinning, "Islands-In-The-Sea", and other costly processes.
- NTI's unique, patented designs also incorporate a ***built-in-filter***, resulting in ***more 'on-line' operating time*** before clogging.

These are just a few of the many major benefits, proving why NTI's patented technology is **the breakthrough the nonwoven industry has been waiting for.**

NTI is in the process of organizing a meeting with companies presently interested in our technology. If your company would like to attend, we will notify you also. Please respond under **separate email** to **[asfabb@optonline.net](mailto:asfabb@optonline.net)** (This will guarantee that your response is received by us.) -

Topics on the agenda will include:

- Presentation and latest updates on NTI's state-of-the-art patented technology
- NTI's technology support
- Affiliates involved in this program

- General conditions of Licensing Agreement
- Sample of NTI's technology
- Experts to answer questions

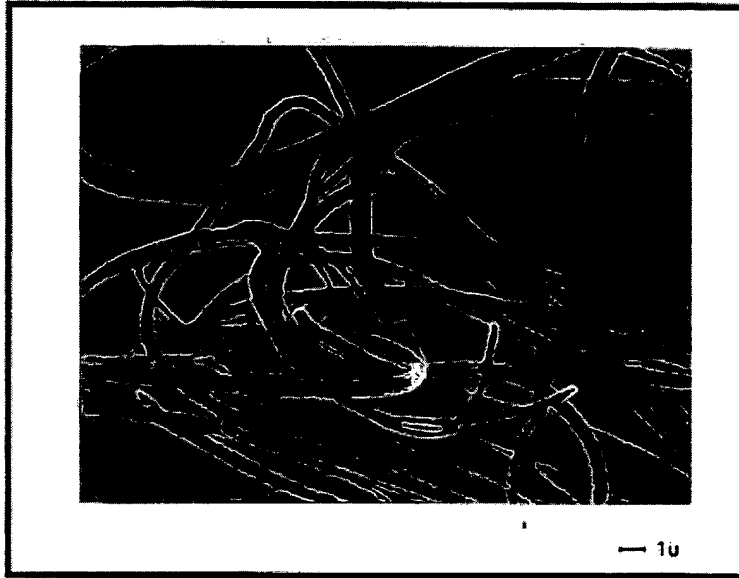
**To learn more, NTI encourages your company to investigate the unusual, unique offer of breakthrough technology and join with others in this cost saving opportunity!**

Cordially,

**NONWOVEN TECHNOLOGIES, INC.**

**Anthony (TONY) S. Fabbriante, President**

(More about us, please see page 12 of FILTRATION+SEPARATION, May 2005 issue  
<http://redigitaleditions.com/activemagazine/welcome/rfs/rfs050501.asp>)



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Comment  
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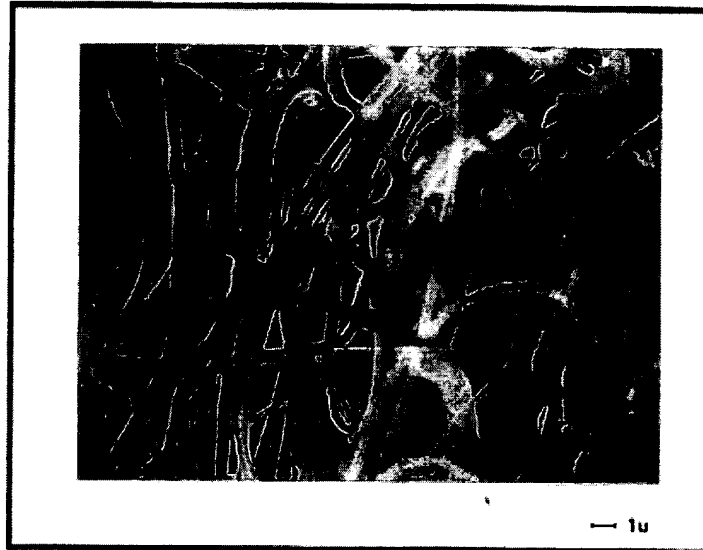
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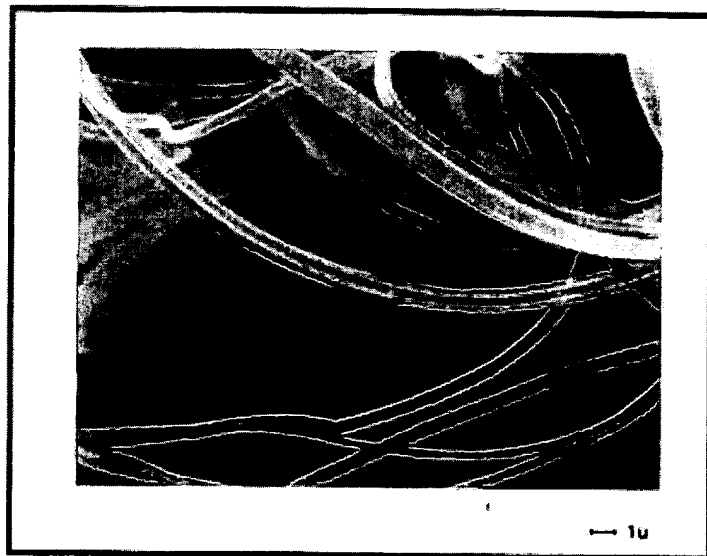
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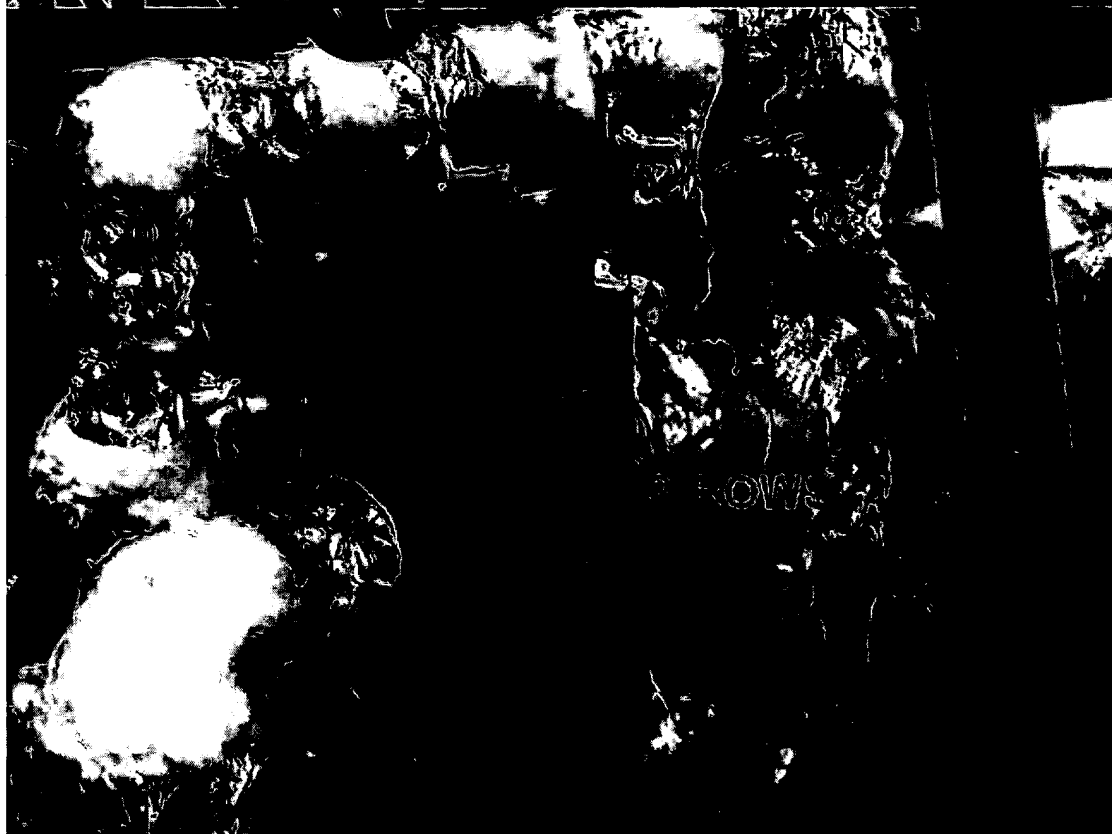
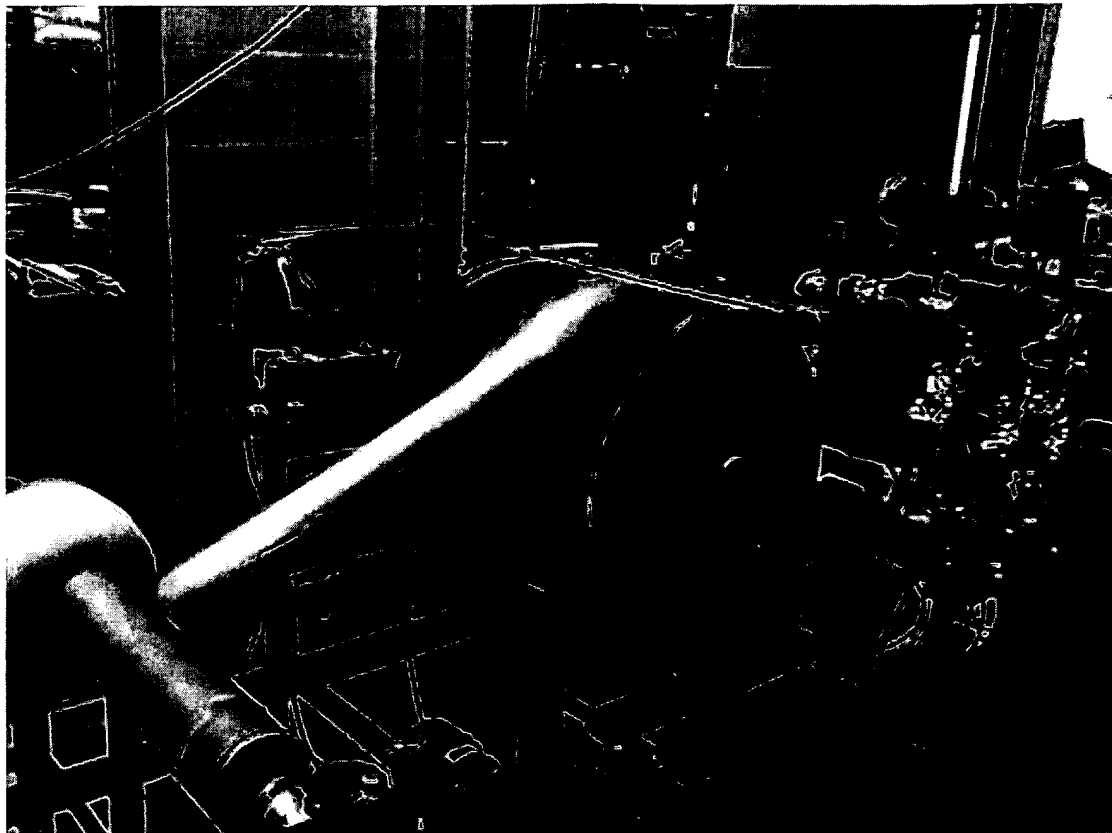
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